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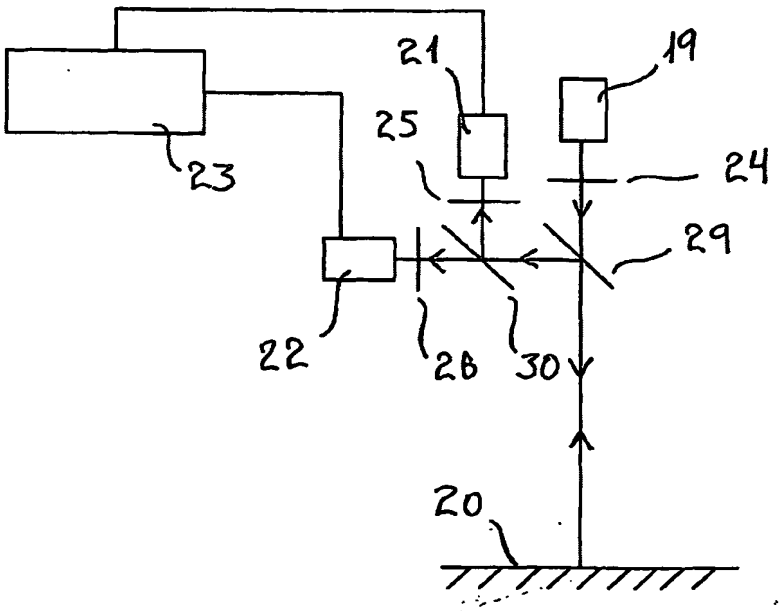
(54) Title: A DEVICE FOR DETECTION OF SURFACE CONDITION DATA



(57) Abstract: A device is disclosed for detection of surface properties or conditions, in particular detection of water, snow and ice and in particular to read surfaces by means of detector means mounted on individual vehicles, and transmitting the data from the vehicle, preferably together with position data of the vehicle, to be used by drivers of other vehicles for warning of slippery road conditions ahead of the vehicle. According to a particular aspect, it has been realised that the fact that polarized light which is mirror reflected by e.g. ice or water on a surface, preserves its polarization, whereas polarized light which is diffuse reflected largely becomes depolarized, may be utilised to separate the two types of reflection and thus provide a much more compact sensor device for surface properties, in which the light may be emitted close to or parallel to the road surface normal.

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